



GENERAL ASSEMBLY OF THE STATE OF TENNESSEE

FISCAL REVIEW COMMITTEE

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REPORT TO THE GENERAL ASSEMBLY ON CHANGES IN THE CALCULATION OF FISCAL NOTES FOR INCARCERATION COSTS AND COLLECTION OF REVENUE FROM FINES FOR THE 106TH GENERAL ASSEMBLY

DECEMBER 18, 2008

Introduction

Pursuant to Senate Joint Resolution 1165 (2008), the Fiscal Review Committee has completed a thorough review of the manner in which incarceration costs and fine revenue are calculated for fiscal notes. The Committee approved the following report at its meeting on December 17, 2008.

Incarceration Costs

Estimates of incarceration costs contain three elements: (1) the per diem cost of housing each offender; (2) the number of offenders; and (3) the average time served. These elements are multiplied to arrive at an annual cost using the following formula:

$$\text{per diem} \times \text{number of offenders} \times \text{average time served} = \text{annualized cost}$$

Based upon the Committee's review, the Committee staff has retained the basic formula but has modified the methodology used for calculating the cost of each of these elements.

(1) *Per diem cost*

The per diem is currently calculated by adding the operational cost of the prison system (the operating budget for all prisons divided by the capacity of the system), administrative cost, state-wide indirect cost (allocated from the Comptroller, F&A, Health and Human Resources), major maintenance cost (maintenance costs less than \$100,000), capital maintenance cost (maintenance costs exceeding \$100,000), and training academy cost to arrive at a total per diem cost. The total cost is then weighted to account for felons held in local jails (most county jails are reimbursed for costs at a lower rate). In 2008, the per diem cost was \$62.78.

After reviewing Tenn. Code Ann. § 9-4-210, the statute governing incarceration costs, the Committee staff determined that capital maintenance costs should not be included in the per diem cost. The statute requires an appropriation for the estimated operating cost of any law increasing periods of imprisonment, but specifically excludes capital outlay costs from operating costs. Tenn. Code Ann. § 9-4-210(b). Capital maintenance costs are capital outlay costs and should be excluded.

The per diem capital maintenance cost for 2008 was \$5.15. Weighting this cost to include locally-housed felons, the reduction for capital maintenance is \$3.67. This adjustment would have reduced the overall per diem to \$59.11, a reduction of 5.8 percent. The remaining components of the per diem cost are proper and should be retained.

(2) *Number of offenders*

(A) *Three- or five-year average*

Calculating the number of offenders requires determining the number of existing offenders for a bill that lengthens an existing sentence, or determining the number of existing offenders for a similar offense for a bill that creates a new offense. Currently, the Department of Correction provides data to the staff on the number of offenders in the immediately preceding year.

The Committee staff will now utilize a three- or five-year average of existing offenders (depending on the available data) to smooth out unusual year-to-year fluctuations. The five-year average is generally preferable (except for fast-growing crimes) and will be utilized when data are available for five years unless the staff determines that more recent data are more accurate. The staff believes this change will provide a more accurate estimate of the number of offenders over time. The Department has agreed to provide this historical data.

(B) Population growth adjustment

Tenn. Code Ann. § 9-4-210(c) requires incarceration costs to be based on the highest of the next ten years of estimated operating costs. This provision requires an adjustment for population growth in the number of offenders in the tenth year. The Committee staff has been using a population growth adjustment of 1.09 percent per year based on data from the 2000 federal census of Tennessee's population. Based on updated census figures, the Committee staff will adjust the growth percentage upward to 1.12 percent.

(3) Average time served

The staff will make two significant changes in the manner in which average time served is calculated. The changes are (A) utilizing actual data on average time served by felony classification; and (B) incorporating a recidivism factor in determining the number of inmate-years to be served.

(A) Use of actual data on average time served

To date the staff has assumed that sentences will be at the bottom of the sentencing range for all Class E, D, C, and B, and less-serious Class A felonies, and mid-range for serious Class A felonies, without regard to actual time served. Length of sentence has been calculated as follows:

Class E	0.3 years
Class D	0.6 years
Class C	0.9 years
Class B	2.4 years
Class A	6.0 or 20.0 years (depending on severity of offense)

To obtain a more accurate estimate of the time served, the staff has obtained actual time served data from the Department of Correction. The Department is still working with the data to filter out the impact of convictions for multiple offenses and to isolate the sentence served for each felony class, but approximate numbers are available as follows:

Class E	1.80 years
Class D	2.67 years
Class C	3.90 years
Class B	6.62 years
Class A	15.98 years

Making this change will improve accuracy. It will increase the cost of incarceration due to the use of longer sentences in the calculation but will avoid the

arbitrary understatement of costs that occurs under the current methodology.

(B) Recidivism

Based upon testimony and presentations from the witnesses, the Committee staff believes that a recidivism discount should be included within the calculation of average time served for certain offenses. The Committee staff has not previously included any recidivism discount in its calculation.

The staff believes that although recidivism cannot be calculated with precision since it involves assumptions about the number of offenders who will re-offend, the time frame in which they will re-offend, and the time served for the re-offense, a conservative assumption can be made based upon recidivism data from the Department that will more accurately reflect the fact that some offenders included in the cost of incarceration would have committed another offense during the period being measured and would have been in the prison system anyway. There should be a discount from the cost of incarceration for these re-offenders.

According to the Department, 21 percent of offenders will re-offend within one year; 35 percent will re-offend within two years; and 42 percent will re-offend within three years. The staff will apply one of these numbers to categories of offenses specified below to reflect the likelihood that some offenders will re-offend under current law and should not be counted twice. For additional sentences less than one year, the recidivism discount will be zero. For additional sentences between one and two years, the recidivism discount will be 21 percent. For additional sentences between two and three years, the recidivism discount will be 35 percent. For additional sentences in excess of three years, the recidivism discount will be 42 percent.

The number assumes that the offender would re-offend at the same felony level as the first offense. Given the variable nature of recidivism and length of time served for various classes of felonies, the staff will only apply recidivism to offenses as to which re-offense can occur and the offender can be re-admitted to the system within the time frame of the sentence to be added under the new bill.

By definition, the recidivism factor will not apply to new offenses. It will apply to offenses for which a sentence is lengthened or for which a classification is made more serious (e.g., changing an E felony to a B felony). The recidivism discount will apply to the following offenses:

<u>Classification change</u>	<u>Additional sentence</u>	<u>Recidivism discount</u>
Class E to Class D	0.77 years	None
Class E to Class C	2.10 years	35% (two-year rate)
Class E to Class B	4.82 years	42% (three-year rate)
Class E to Class A	14.18 years	42% (three-year rate)
Class D to Class C	1.23 years	21% (one-year rate)
Class D to Class B	3.95 years	42% (three-year rate)
Class D to Class A	13.31 years	42% (three-year rate)
Class C to Class B	2.72 years	35% (two-year rate)
Class C to Class A	12.08 years	42% (three-year rate)
Class B to Class A	9.36 years	42% (three-year rate)

Other incarceration cost factors

Two other factors should be mentioned although they are not included in this revised methodology: (1) deterrence; and (2) inflation in the cost of housing offenders.

Some witnesses testified that there is a deterrent effect from lengthier sentences that should be taken into account. After reviewing their presentations and other research literature, the staff believes that there is simply no way to calculate a deterrence discount that is not arbitrary and therefore problematic. The quantitative impact of deterrence is controversial among experts in the field. More importantly, it simply cannot be measured in a way that complies with Tennessee's conservative budgeting principles necessitated by the constitutional balanced budget requirement. If a deterrent impact exists that could be measured quantitatively with any degree of accuracy, it might reduce the cost of incarceration, but that measurement cannot be made.

A second factor, which in the view of staff far outweighs the deterrence factor even using the most liberal deterrent impact assumptions, is the exclusion of an inflation factor in estimating the cost of housing offenders. The staff is required by Tenn. Code Ann. § 9-4-210(c) to use "current dollars" in estimating incarceration costs. This limitation prohibits the inclusion of the actual cost of housing prisoners in subsequent years because inflation cannot be considered.

Operating costs at Tennessee prisons have inflated at a rate of approximately six percent per year over the past five years. At this rate, the cost of housing an offender will be 69 percent higher in 10 years than it is today. By statute, fiscal notes utilize today's dollars rather than inflated dollars. The impact of excluding inflation understates the cost of incarceration in fiscal notes by an amount that far exceeds any overstatement of costs due to the inability to measure a deterrent impact.

Included on the following pages are three examples of the impact of the changes on fiscal notes.

EXAMPLE ONE – HB 2744/SB 2865 (2008)

Summary of bill: Broadens the Class E felony offense of unlawful possession of a handgun to include a person with any prior felony conviction. Increases the punishment from a Class E to a Class C felony offense for unlawful possession of a handgun if the offender has a prior conviction for a felony involving the use or attempted use of force, violence or a deadly weapon. Increases the punishment from a Class E to a Class D felony offense, if the prior conviction was for a felony drug offense.

Broaden existing Class E offense:

Base population using five-year average	79
10 percent increase as result of bill	8
Inflation factor at 1.12%	9
Recidivism discount – 0	
Increase in sentence = none	
Average time served Class E felony – 1.80 years (657.45 days)	
Cost per inmate at 1.80 years – \$38,861.87 (\$59.11 x 657.45 days)	
Additional cost for 9 inmates – \$349,756.83 (\$38,861.87 x 9)	

Old method of calculating fiscal note: \$61,914.87
New method of calculating fiscal note: \$349,756.83

Increase classification from Class E to Class C felony:

Base population involving prior felony	40
Inflation factor at 1.12%	45
Recidivism discount using 2-year failure rate	(16)
Average Time served Class C felony – 3.90 years	
Average Time served Class E felony – 1.80 years	
Increase in sentence = 2.10 years	
45 felonies x 2.10 years (increase in sentence) = 94.5 inmate years	
16 felonies (applying recidivism rate) x 1.80 years = 28.8 inmate years	
Additional inmate years =	65.7 inmate years
65.7 inmate years ÷ by 2.10 years (increase in sentence) = 31.3 inmates	
Cost per inmate at 1.80 years – \$38,861.87 (\$59.11 x 657.45 days)	
Cost per inmate at 3.90 years – \$84,201.01 (\$59.11 x 1,424.48 days)	
Additional cost from increased sentence per inmate – \$45,339.14 (\$84,201.01 - \$38,861.87)	
Additional cost for 31 inmates – \$1,405,513.34 (\$45,339.14 x 31)	

Old method of calculating fiscal note: \$619,120.80
New method of calculating fiscal note: \$1,405,513.34

Increase classification from Class E to Class D felony:

Base population involving prior felony drug convictions 39
Inflation factor at 1.12% 44
Recidivism discount – 0
Class E felony to a Class D felony
Average Time served Class D felony – 2.67 years
Average Time served Class E felony – 1.80 years
Increase in sentence = 0.77 years
Cost per inmate at 1.80 years – \$38,861.87 (\$59.11 x 657.45 days)
Cost per inmate at 2.67 years – \$57,645.25 (\$59.11 x 975.22 days)
Additional cost for increased sentence per inmate – \$18,783.58 (\$57,645.25 -
\$38,861.87)
Additional cost for 44 inmates – \$826,477.52 (\$18,783.58 x 44)

Old method of calculating fiscal note: \$295,788.83
New method of calculating fiscal note: \$826,477.52

TOTAL COST OF BILL:

Old method of calculating fiscal note: \$976,800
New method of calculating fiscal note: \$2,581,700

EXAMPLE TWO – HB 2604/SB 2898 (2008)

Summary of bill: Increases the penalty for arson from a Class C to a Class B felony. Requires a minimum sentence of eight years for the Class B felony offense for arson of a place of worship and a minimum sentence of 15 years for the Class A felony offense of aggravated arson.

Increase classification from Class C to Class B felony:

Base population using four-year average	40
No additional cost for aggravated arson as these offenses are currently calculated at 17 years which is above the proposed minimum 15-year sentence.	
15 percent (6) currently sentenced as Class B felonies	
Remaining 34 would serve increased sentence	
Inflation factor at 1.12%	38
Recidivism discount using 2-year failure rate – 35%	13
Average Time served Class B felony – 6.62 years	
Average Time served Class C felony – 3.90 years	
Increase in sentence = 2.72 years	
38 felonies x 2.72 years (increase in sentence) = 103.36 inmate years	
13 felonies (applying recidivism rate) x 3.90 years = 50.7 inmate years	
Additional inmate years =	52.66 inmate years
52.66 inmate years ÷ by 2.72 years (increase in sentence) = 19.36 inmates	
Cost per inmate at 3.90 years – \$84,201.01 (\$59.11 x 1,424.48 days)	
Cost per inmate at 6.62 years – \$142,925.02 (\$59.11 x 2,417.95 days)	
Additional cost for increased sentence per inmate – \$58,724.01 (\$142,925.02 - \$84,201.01)	
Additional cost for 19 inmates – \$1,115,756.19 (\$58,724.01 x 19)	
Old method of calculating fiscal note: \$1,307,020.64	
New method of calculating fiscal note: \$1,115,756.19	

Increase classification from Class C to Class B felony (8-yr. minimum):

Base population: 6
Inflation factor at 1.12% 7
Recidivism Rate using 3-year failure rate – 42% 3
Class C felony to a Class B felony (8 year minimum sentence)
Average Time served Class B felony – 8.00 years
Average Time served Class C felony – 3.90 years
Increase in sentence = 4.1 years
7 felonies x 4.1 years (increase in sentence) = 28.7 inmate years
3 felonies (applying recidivism rate) x 3.90 years = 11.7 inmate years
Additional inmate years = 17 inmate years
17 inmate years ÷ by 4.1 years (increase in sentence) = 4.14 inmates
Cost per inmate at 3.90 years – \$84,201.01 (\$59.11 x 1,424.48 days)
Cost per inmate at 8.00 years – \$172,719.42 (\$59.11 x 2,922 days)
Additional cost for increased sentence per inmate – \$88,518.41 (\$172,719.42 - \$84,201.01)
Additional cost for 4 inmates – \$354,073.64 (\$88,518.41 x 4)

Old method of calculating fiscal note: \$898,871.47

New method of calculating fiscal note: \$354,073.64

TOTAL COST OF BILL:

Old method of calculating fiscal note: \$2,205,900

New method of calculating fiscal note: \$1,823,900

EXAMPLE THREE – SB 3864/HB 3697 (2008)

Summary of bill: Creates a new Class E felony offense to knowingly allow a minor to be present during any animal fighting.

New offense Class E felony

Base year population 3

Inflation factor at 1.12% (does not apply) 0

Recidivism rate not applied because it is a new offense

Average time served Class E felony – 1.80 years

Cost per inmate at 1.80 years – \$38,861.87 (\$59.11 x 657.45 days)

Additional cost for 3 inmates – \$116,585.61 (\$38,861.87 x 3)

TOTAL COST OF BILL:

Old method of calculating fiscal note: \$20,600

New method of calculating fiscal note: \$116,600

Fine Revenue

The staff surveyed court clerks in Tennessee to determine the percentage of fines, court costs, and litigation taxes collected, as well as obstacles limiting the collection of revenue. The available data were limited in many counties, but the staff obtained adequate quantifiable data from 15 counties, reflecting all geographic regions of the state and a broad population range. Based on these data, the average collection rate in criminal cases was 47 percent in 2007, down from 62 percent in 2003.

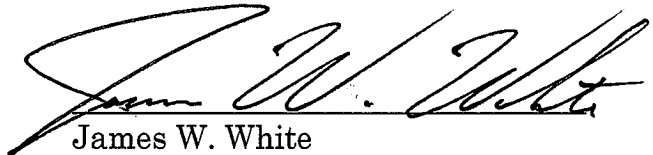
This collection percentage is higher than has been assumed in many fiscal notes. It is important to distinguish between traffic offenses and other cases. Based upon information provided by the clerks, it is reasonable to assume that an average of 80 percent of fines for traffic offenses will be collected. A much lower percentage is collected for other misdemeanor offenses. Collection of fines in felony cases is very small, although the state can garnish an inmate's prison account to recover a portion of the amount owed. Given that most inmates's prison account is very modest, the amount collected in this manner is negligible.

The staff will assume an 80 percent collection rate on traffic offenses. In 2007, fiscal notes assumed a 75 percent collection rate for traffic offenses. The staff will continue the existing policy of not assuming collection of any fine revenue for felonies.

Committee Review

The Committee held two public hearings and heard testimony from Senator Mark Norris; Barbara Toombs, Senior Fellow, Center on Sentencing and Corrections/Vera Institute of Justice; Riley Darnell, Secretary of State; George Little, Commissioner, Department of Correction; James W. White, Executive Director, Fiscal Review Committee; William Bradley, Director of the Budget Division, Department of Finance and Administration; Elizabeth Sykes, Administrative Director, Administrative Office of the Courts; William Gibbons, District Attorneys General Conference; Jeffrey Henry, District Public Defenders Conference; Dr. Richard Janikowski, Center for Community Criminology and Research, University of Memphis; Dr. Mark Lipsey, Director, Center for Evaluation Research and Methodology and Research Professor of Public Policy, Vanderbilt Institute for Public Policy Studies; Ronal Serpas, Chief of Police, Metropolitan Nashville and Davidson County; and Charles Traugher, Chairman, Tennessee Board of Probation and Paroles.

This report is based upon the testimony of these witnesses, their presentations, additional research by the Committee staff, and ongoing discussions with the Department of Correction.

A handwritten signature in dark ink, appearing to read "James W. White". The signature is fluid and cursive, with a large initial "J" and "W".

James W. White
Executive Director